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EXAMINER

DAVIS, ROBERT B

ART UNIT

PAPER NUMBER

1722

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,557

Applicant(s)

TAKADA ET AL.

Examiner

Robert B. Davis

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-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10 and 25-44 is/are allowed.
- 6) ☒ Claim(s) 11, 12, 14, 15 and 17-24 is/are rejected.
- 7) ☒ Claim(s) 13 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/474,746.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 7, 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 11, 12 and 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3 and 4 of U.S. Patent No. 6,247,916 in view of Spurr et al (4,261,949: figures 1-16, column 2, line 9 to column 3, line 27, and column 6, lines 60-68).

Claim 3 of U.S. Patent (-916) discloses all claimed features of the apparatus except for the preform molding station simultaneously injection molding N preforms at a first pitch (the Patent claim merely discloses a preform molding station for injection molding of a preform), and a blow molding station for simultaneously stretch blow molding n of the preforms at a second pitch into bottles, wherein N is an integer multiple of n and is greater than n, and the second pitch is greater than the first pitch (the Patent claim merely discloses a blow molding station for stretch blow molding the preforms into bottles).

Spurr et al disclose an apparatus for injection blow molding a container comprising: an injection molding station (10, 20) for injection molding N parisons simultaneously at a first pitch, and a blow molding station (82) for simultaneously blowing a set but lesser number (N/x) at a greater pitch. Figure 12 illustrates the transfer assembly (65) that changes the pitch of the parisons (21) as they are fed into the blow mold (82). Figure 16 illustrates the difference in cycle time between the injection molding step and the blow molding step. Spurr et al further disclose that the transfer assembly (65) has clamping jaws (66) to support the necks of the parisons (preforms) while the pitch is being changed.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of claim 3 of Patent (-916) by having a parison injection molding assembly that forms N parisons simultaneously, a pitch changing transfer mechanism to change the pitch of the molded parisons, and a blow molding assembly having N/x (wherein x is greater than 1) cavities for simultaneously blowing N/x parisons into molded articles at a second pitch as the use of more parison cavities in relation to blow molding cavities allows for optimum productivity per mold due to maximizing the efficiency of both the parison and blow molding cycles (Spurr et al column 6, lines 60-68). In regards to claim 14, it would have been further obvious to modify claim 3 of the Patent by using a pitch changing and transfer assembly which has two neck supporting mechanisms (clamping jaws) to support the necks while the pitch of the preforms is being switched as disclosed by Spurr et al for the purpose of adequately supporting the preforms during the transfer step.

3. Claims 17-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5-12 of U.S. Patent No. 6,247,916 in view of Spurr et al (4,261,949).

Claims 5-12 of U.S. Patent (-916) disclose all claimed features except for the injection molding station including injection cores and neck cavity molds for simultaneously injection molding a first number N preforms where N is greater than one and a blow molding station molding a second number n preforms wherein n is less than N . The present claim 17 uses the language an ejection mechanism instead of means for ejecting of the Patent claim 5 in regards to the injection molding station. Claim 20 uses the language first mounting mechanism instead of first means for mounting in the Patent claim 8. Claim 21 uses the language a third mounting mechanism instead of means for movably mounting in claim 9 of the Patent. Claim 22 uses the language movement mechanism instead of means for moving in claim 10 of the Patent.

Spurr et al disclose an apparatus for injection blow molding a container comprising: an injection molding station (10, 20) for injection molding N parisons simultaneously at a first pitch, and a blow molding station (82) for simultaneously blowing a set but lesser number (N/x) at a greater pitch. Figure 12 illustrates the transfer assembly (65) that changes the pitch of the parisons (21) as they are fed into the blow mold (82). Figure 16 illustrates the difference in cycle time between the injection molding step and the blow molding step.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of claim 3 of Patent (-916) by having a parison injection

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molding assembly that forms N parisons simultaneously and a blow molding assembly having N/x cavities for simultaneously blowing N/x parisons into molded articles as the use of more parison cavities in relation to blow molding cavities allows for optimum productivity per mold due to maximizing the efficiency of both the parison and blow molding cycles (Spurr et al column 6, lines 60-68).

It is clear that the limitation of "first mounting mechanism" is the same limitation as "first means for mounting" without using, means plus function language. It is clear that the limitation of "movement mechanism" is the same limitation as "means for moving" without using means plus function language. It is clear that the limitation of "a third mounting mechanism for movably mounting" is the same limitation as "means for movably mounting" without using means plus function language.

4. Claim 15 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6,247,916 in view of Spurr et al (4,261,949) and Rees et al (4,197,073: figures 1, 2 and 5, and column 2, lines 50-63).

Claim 3 of U.S. Patent (-916) discloses all claimed features of the apparatus except for the preform molding station simultaneously injection molding N preforms at a first pitch (the Patent claim merely discloses a preform molding station for injection molding of a preform), and a blow molding station for simultaneously stretch blow molding n of the preforms at a second pitch into bottles, wherein N is an integer multiple of n and is greater than n, and the second pitch is greater than the first pitch (the Patent claim merely discloses a blow molding station for stretch blow molding the preforms into

bottles. Claim 3 also fails to disclose the pitch changing and transfer mechanism comprises an advancing mechanism to move the n preforms along nonparallel paths with respect to each other.

Spurr et al disclose an apparatus for injection blow molding a container comprising: an injection molding station (10, 20) for injection molding N parisons simultaneously at a first pitch, and a blow molding station (82) for simultaneously blowing a set but lesser number (N/x) at a greater pitch. Figure 12 illustrates the transfer assembly (65) that changes the pitch of the parisons (21) as they are fed into the blow mold (82). Figure 16 illustrates the difference in cycle time between the injection molding step and the blow molding step. Spurr et al further disclose that the transfer assembly (65) has clamping jaws (66) to support the necks of the parisons (preforms) while the pitch is being changed.

Rees et al disclose an injection blow molding assembly wherein a preform transfer and pitch changing assembly comprises rails (2, 2'), which diverge from parison forming injection molding machine (3) to blow molding unit (4).

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of claim 3 of Patent (-916) by having a parison injection molding assembly that forms N parisons simultaneously, a pitch changing transfer mechanism to change the pitch of the molded parisons, and a blow molding assembly having N/x (wherein x is greater than 1) cavities for simultaneously blowing N/x parisons into molded articles at a second pitch as the use of more parison cavities in relation to blow molding cavities allows for optimum productivity per mold due to maximizing the

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efficiency of both the parison and blow molding cycles (Spurr et al column 6, lines 60-68). In regards to claim 14, it would have been further obvious to modify claim 3 of the Patent by using a pitch changing and transfer assembly which has two neck supporting mechanisms (clamping jaws) to support the necks while the pitch of the preforms is being switched as disclosed by Spurr et al for the purpose of adequately supporting the preforms during the transfer step. It would have been further obvious to modify the apparatus of claim 11 by having a transfer and pitch changing device which moves the parisons along nonparallel paths as disclosed by Rees et al for the purpose of changing the pitch during transfer from the injection molding assembly having a first pitch to a blow molding assembly having a second pitch for the purpose of achieving the transfer and pitch changing functions simultaneously instead of requiring two different assemblies.

Claim Suggestions

5. Line 4 of claim 35, it is suggested that "moldling" be amended to "molding".
6. It is suggested that lines 18 and 19 of claim 11 be amended to recite "a blow molding section for blow molding the preforms carried along the carrying path into the bottles". Also, on lines 20, "the at least one bottle" is suggested to be amended to recite "the bottles". Lines 5-7 of the claim states "a blow molding station for simultaneously stretch blow molding n of the preforms at a second pitch into bottles, wherein N is an integer multiple of n and is greater than n, and the second pitch is greater than the first pitch". Since this limitation refers to blowing n of the preforms at a second pitch greater

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than the first pitch, the examiner considers the claim to require at least two blow molding cavities. Thus, changing "at least one preform" from "the preforms" and "the at least one bottle" to "the bottles" would coordinate the blow molding section and bottle ejecting section with the earlier blow molding station limitation.

Allowable Subject Matter

7. Claims 7-10 and 25-44 are allowed over the prior art of record.

8. Claims 13 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: In regards to claim 7, none of the prior art of record teaches or suggests an injection stretch blow molding apparatus, comprising: a preform molding station for injection molding preforms; a blow molding station for stretch blow molding the preforms into containers; and a transfer station for transferring the preforms from the preform molding station to the blow molding station, wherein the preform molding station comprises an injection molding section for simultaneously injection molding a first number N of the preforms at a first pitch, wherein N is greater than or equal to two, wherein the blow molding station comprises: a circulatory carrier for intermittently circulatorily carrying the preforms along a carrying path at a second pitch larger than the first pitch, the preforms being transferred from the preform molding station through the transfer station; a heating section for heating the preforms being transferred along the carrying path; and a blow molding section for simultaneously blow molding n of the

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containers from a second number n of the preforms wherein n is greater than or equal to one and less than N , and wherein the transfer station comprises: a receiving mechanism for simultaneously receiving the N preforms from the preform molding station with the N preforms at the first pitch; a preform handling mechanism to move the preforms from the receiving station to an intermediate location; and a pitch changing and transfer mechanism for changing an array pitch of the preforms from the first pitch to the second pitch and also transferring n of the preforms from the intermediate location to the circulatory carrier in the blow molding station. The closest prior art (Spurr et al 4,261,949) discloses a blow molding machine which injection molds a first number of parisons N , a transfer mechanism which changes the pitch, and a blow molding station that blows a number n of the parisons, but the reference fails to disclose or suggest a circulatory carrier for intermittently circulatorily carrying the preforms along a carrying path at a second pitch larger than the first pitch. Claim 32 is merely a slightly reworded version of claim 7 that is allowable for the same reasons.

In regards to claim 13, the prior art fails to disclose or suggest the apparatus of claim 11 wherein the transfer station comprises a receiving mechanism for simultaneously receiving the N preforms from the preform molding station with the N preforms at the first pitch, a pitch changing and transfer mechanism for changing an array pitch of the preforms from the first pitch to the second pitch while transferring n of the preforms to the circulatory carrier in the blow molding station and a preform handling mechanism to move the preforms from the receiving mechanism to the pitch changing and transfer mechanism. The closest prior art (Spurr et al) teaches an apparatus as

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mentioned above, but it fails to disclose or suggest the circulatory carrier and the pitch changing and transfer mechanism for changing an array pitch of the preforms to a second pitch while transferring n of the preforms to the circulatory carrier. Schaar (4,391,578) and Duga (4,140,468) illustrate the closest prior art, but Schaar discloses changing the pitch of the preforms in the neck molds and Duga discloses changing the pitch of the core rods in transferring the parisons. Each reference discloses changing the pitch as the parisons are being transferred directly to the blow molds and neither reference discloses or suggest the circulatory carrier in combination with the pitch changing and transfer mechanism as claimed.

In regards to claim 16, none of the prior art of record teaches or suggests the apparatus of claim 11 wherein there are at least four adjacent preforms at the first pitch in the preform handling mechanism in the transfer section, and the pitch changing and transfer mechanism moves two nonadjacent preforms from the preform handling mechanism to the circulatory carrier in the blow molding station. The closest prior art (Moore 3,850,566) discloses a transfer assembly (15, 25) for removing preforms from a handling assembly (39) and feeding them to a pair of molds (22, 32) wherein the transfer mechanism picks preforms nonadjacent to each other from positions a and f in figure 3, but the reference does not disclose the pitch changing and transfer mechanism removing the parisons from a preform handling mechanism and transferring the parisons to a circulatory carrier in the blow molding station.

In regards to claims 35 and 44, none of the prior art teach or suggest an injection stretch blow molding apparatus provided on a machine bed, comprising: a preform

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molding station for injection molding preforms, a blow molding station for stretch blow molding the preforms into bottles, a transfer station for transferring the preforms from the preform molding station to the blow molding station, and a machine bed on which the preform molding, blow molding and transfer stations are provided, wherein the blow molding station comprises: a receiving section for receiving the at least one preform from the preform molding station through the transfer station, a circulatory carrier for intermittently circulatorily carrying the preforms along a carrying path, the preforms being received from the receiving section, a heating section along the carrying path, a blow molding section along the carrying path, and a bottle ejecting station, and wherein the machine bed is substantially rectangular, and wherein the preform molding, transfer and blow molding stations are substantially linearly aligned on the machine bed. As argued by applicants on page 16 of paper number 11 of parent application 09/310,014, the rectangular machine bed and the fact that the preform molding, transfer and blow molding stations are substantially linearly aligned on the machine bed allows for the apparatus to be placed in a narrower space and modifying the design of European reference 0266804 to obtain a linear layout would require a substantial redesign for which there is no motivation or guidance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 703-308-2625. The examiner can normally be reached on Monday-Friday 9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 703-308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to read 'Robert B. Davis', with a long horizontal flourish extending to the right.

Robert B. Davis
Primary Examiner
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9/10/02